UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF COMMERCIAL FISHERIES

CALIFORNIA FISHERY MARKET NEWS MONTHLY SUMMARY

July 1964

Part II—Fishing Information*

Sea-surface temperatures, fishing and research information
of interest to the West Coast tuna-fishing industry
and marine scientists

CONTENTS

Page

Tagged Bluefin Tuna Recovered off Japan 1

Sea Surface Temperature Charts, Eastern Pacific Ocean, July 1964 2

Bureau of Commercial Fisheries
Biological Laboratory
P. O. Box 6317, Pt. Loma Station
San Diego 6, California

---

* Part I - "Fishery Products Production and Market Data" is issued by the Bureau of Commercial Fisheries, Market News Service, Post Office Building, San Pedro, California

TAGGED BLUEFIN TUNA RECOVERED OFF JAPAN

A bluefin tuna which was tagged and released 70 miles northeast of Guadalupe Island, Baja California, was recovered 22 months later in the Sea of Japan off the northwestern corner of the island of Honshu.

The tuna was tagged and released on August 15, 1962 by a U.S. Bureau of Commercial Fisheries-California Department of Fish and Game research team operating from the chartered purse seiner West Point. The fish was recaptured on June 18, 1964 in a fixed trap net operated by Japanese fishermen near the coastal town of Fukaura, Nishi-Tsugaru County, Aomori Prefecture, Honshu.

The bluefin traveled an estimated Great Circle distance of 4,820 miles, growing from an estimated 23 pounds at time of tagging to 53 pounds at capture.

Federal and State scientists initiated a cooperative bluefin tuna tagging program August 13-23, 1962. A total of 960 fish were released; to date, 168 tags have been recovered by California fishermen. This tag is the first to be returned from Japan.

One other tagged bluefin tuna has made a trans-Pacific migration. This fish was tagged by Inter-American Tropical Tuna Commission personnel in 1958 near Guadalupe Island, Baja California. It was recovered five years and two months later north of the Bonin Islands and had grown in weight from 30-35 pounds at tagging to approximately 265-267 pounds at capture.

SEA SURFACE TEMPERATURE CHARTS, EASTERN PACIFIC OCEAN

JULY 1964

Acknowledgments

The following organizations and stations contributed data for the July 1964 charts:

U.S. Bureau of Commercial Fisheries Exploratory Fishing and Gear Research Base, Seattle, Washington
U.S. Bureau of Commercial Fisheries Biological Laboratories, La Jolla, California; Honolulu, Hawaii and Seattle, Washington
U.S. Weather Bureau, San Diego, California
U.S. Naval Communication Station Balboa, Fort Amador, Canal Zone
U.S. Weather Bureau Port Meteorological Office, Cristobal, Canal Zone
California Department of Fish and Game R/V N.B. Scofield
Fish Commission of Oregon
Guadalupe Island, Coronado Island, Ensenada, Cedros Island and Almejas Bay by Pedro Mercado of the Universidad Autonoma de Baja California, Ensenada, Mexico
Hopkins Marine Station, Pacific Grove, California by J. P. Balesteri
Inter-American Geodetic Survey by Rene Cortes at Salina Cruz, Mexico; David Ortega at Manzanillo, Mexico; L. A. Peren at Pt. Armuelles, Panama; R. H. Valencia at San Jose, Guatemala; V. E. Castillo at Tumaco, Columbia; G. Tapia at San Cristobal, Galapagos; S. Valenzuela at La Libertad, Ecuador; E. Lopez at Talara, Peru; Juan Andia at San Juan, Peru
Inter-American Tropical Tuna Commission, La Jolla and Terminal Island, California
Kelco Company, San Diego, California
Lifeguard Headquarters, Newport Beach, California
Pacific Oceanographic Group, Nanaimo, British Columbia, by H. J. Hollister from observations by E. A. Hartt at Quatsino Lightstation; S. Quon at Cape St. James Light; B. Stuart at Amphitrite Point Light; W. E. Redlac at Langara Island Light
Scripps Institution of Oceanography, La Jolla, California by Margaret Robinson and Hans Klein
Ships Royal Pacific, Jo Linda, Monsoon, Viking and West Point

Charts

Figure 1.--Mean sea surface temperatures (°F) derived from approximately 8000 observations. Squares show temperatures at weather-ship stations. Numerals on shore are temperatures at coastal and light-ship stations.

Figure 2.--Deviation of sea surface temperatures (°F) from long term charts of H.O. 225. Hatched areas are colder than mean.

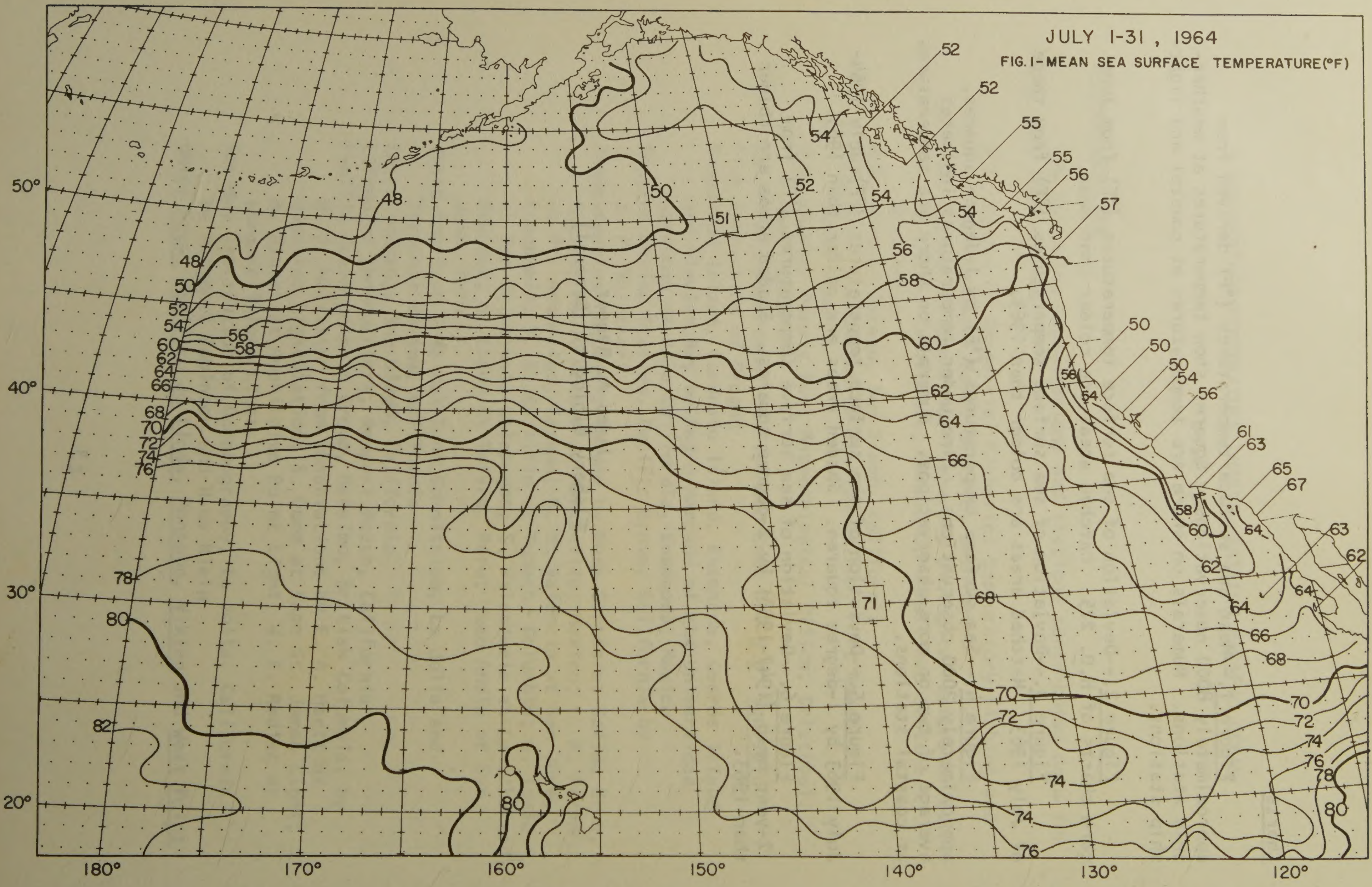
Figure 3.--Deviation of sea surface temperatures (°F) from those of July 1963. Hatched areas are colder than 1963.

Figure 4.--Sea surface temperatures (°F) by 1-degree squares, approximately 2000 observations. Line under temperatures indicates average of two or more observations. Numerals on shore are temperatures at coastal stations.

Figure 5.--Deviation of sea surface temperatures (°F) July 1964-July 1963 by 1-degree squares. Shaded areas are colder than 1963.

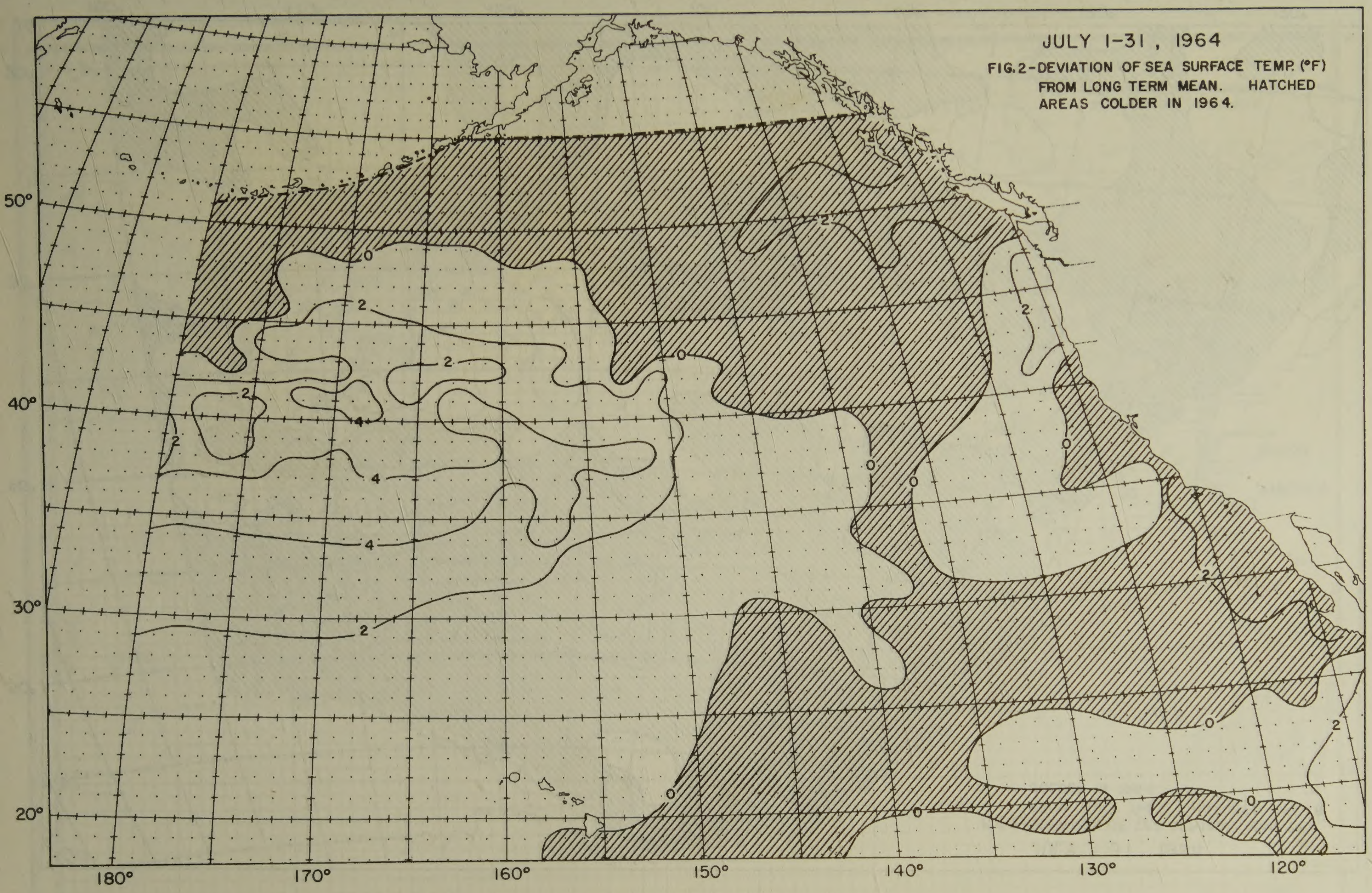
Figure 6.--Deviation of sea surface temperatures (°F) from 12-year mean (1947-1958) by 2-degree squares. Shaded areas are colder than 1963.

James A. Renner
Fishery Biologist (General)


50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
48
50
52
54
55
56
57
58
60
61
62
63
64
65
66
67
68
70
71
72
74
76
78
80
82
51

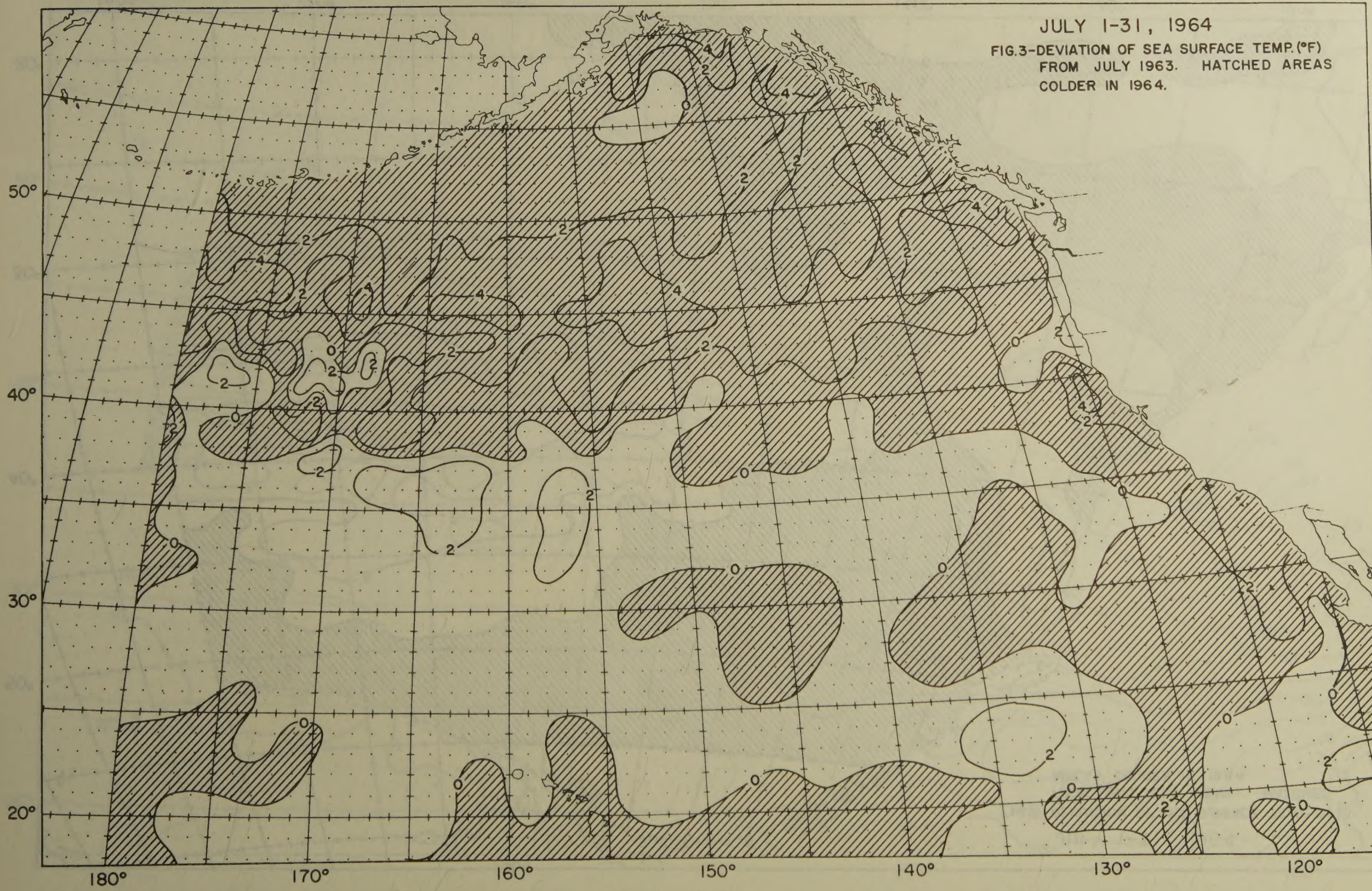
JULY 1-31, 1964

FIG. 1-MEAN SEA SURFACE TEMPERATURE(°F)


50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
0
2
4

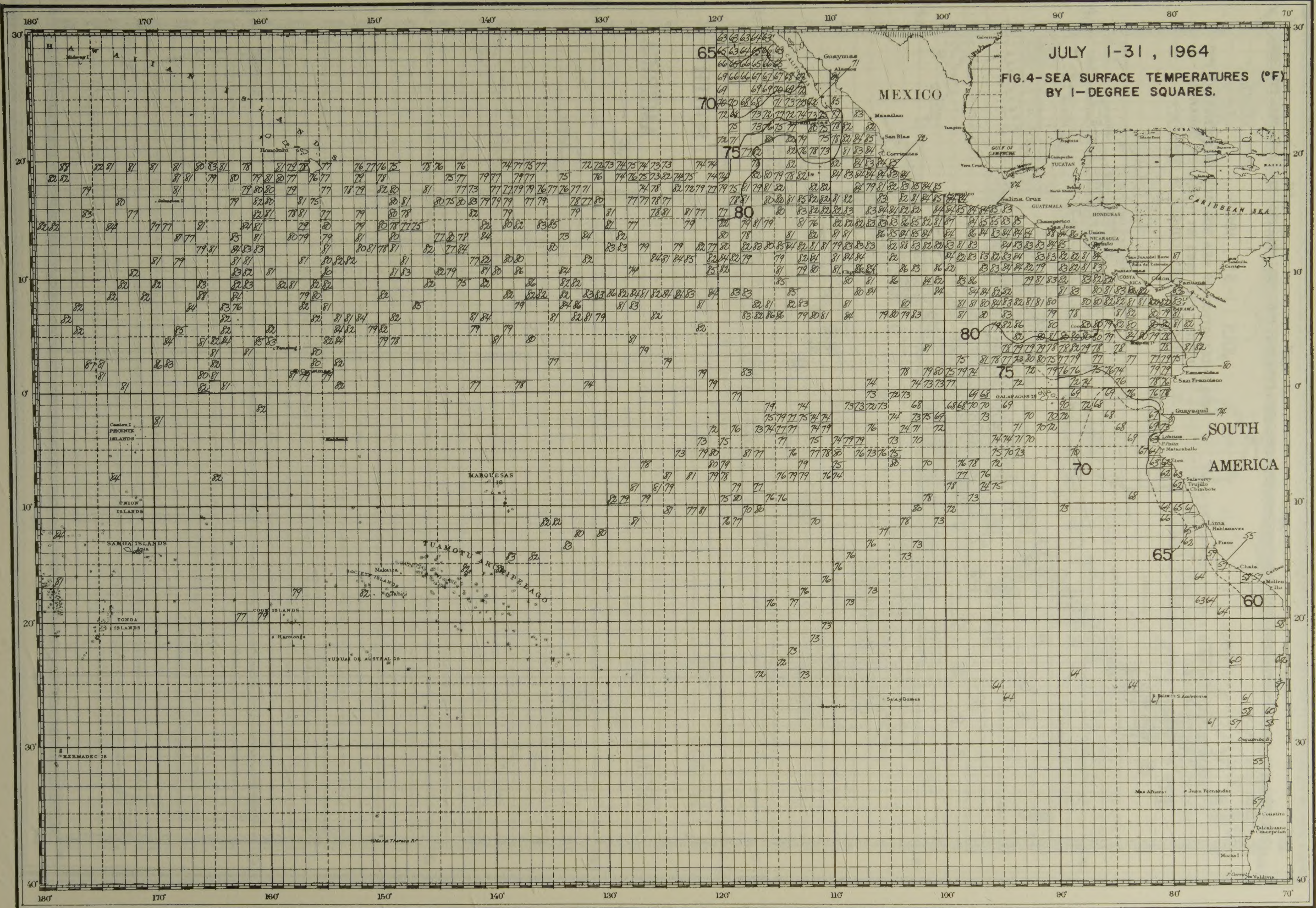
JULY 1-31, 1964

FIG. 2-DEVIATION OF SEA SURFACE TEMP. (°F) FROM LONG TERM MEAN. HATCHED AREAS COLDER IN 1964.


50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
0
2
4

JULY 1-31, 1964

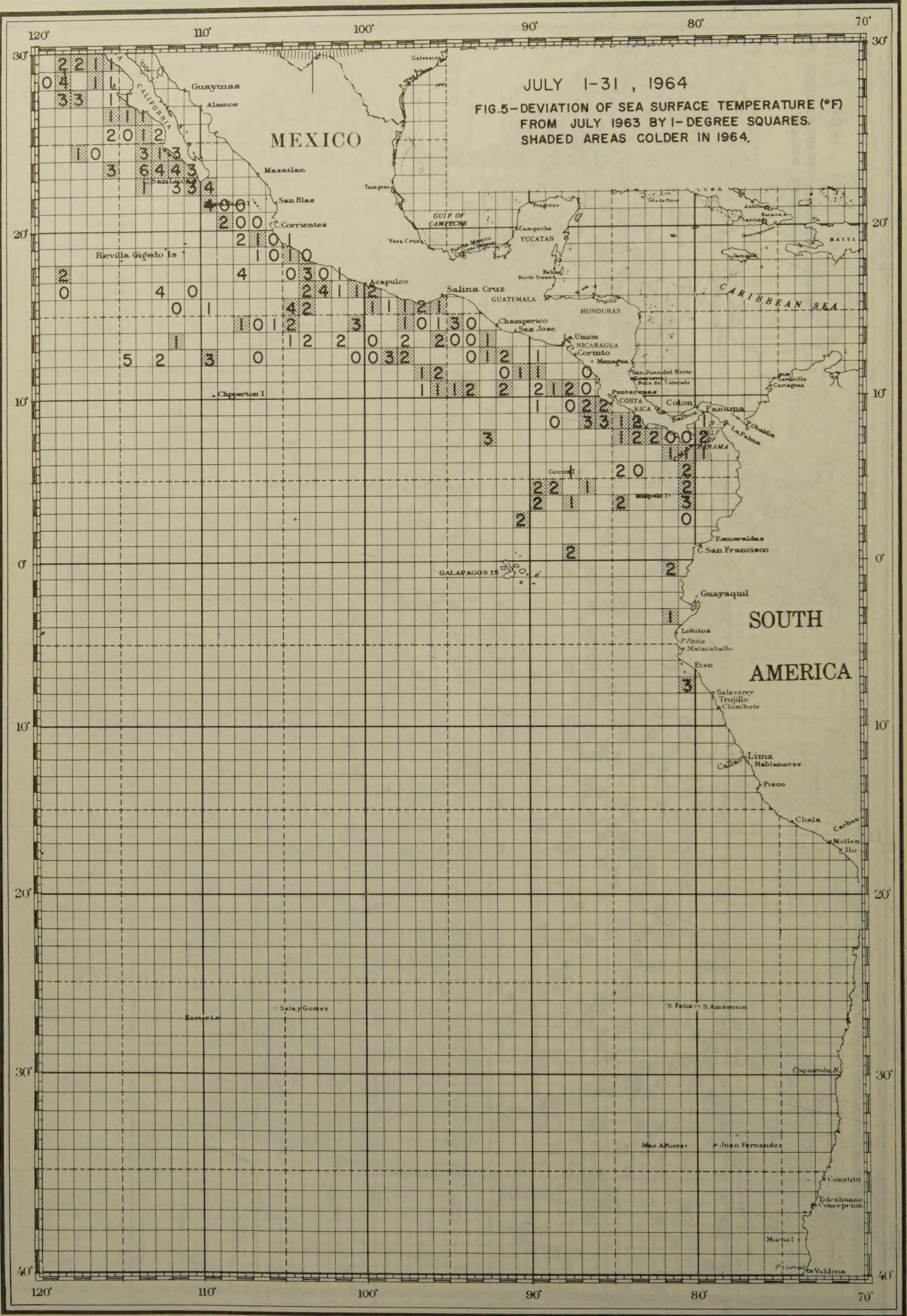
FIG. 3-DEVIATION OF SEA SURFACE TEMP. (°F) FROM JULY 1963. HATCHED AREAS COLDER IN 1964.



JULY 1-31, 1964

FIG. 4-SEA SURFACE TEMPERATURES (°F) BY 1-DEGREE SQUARES.

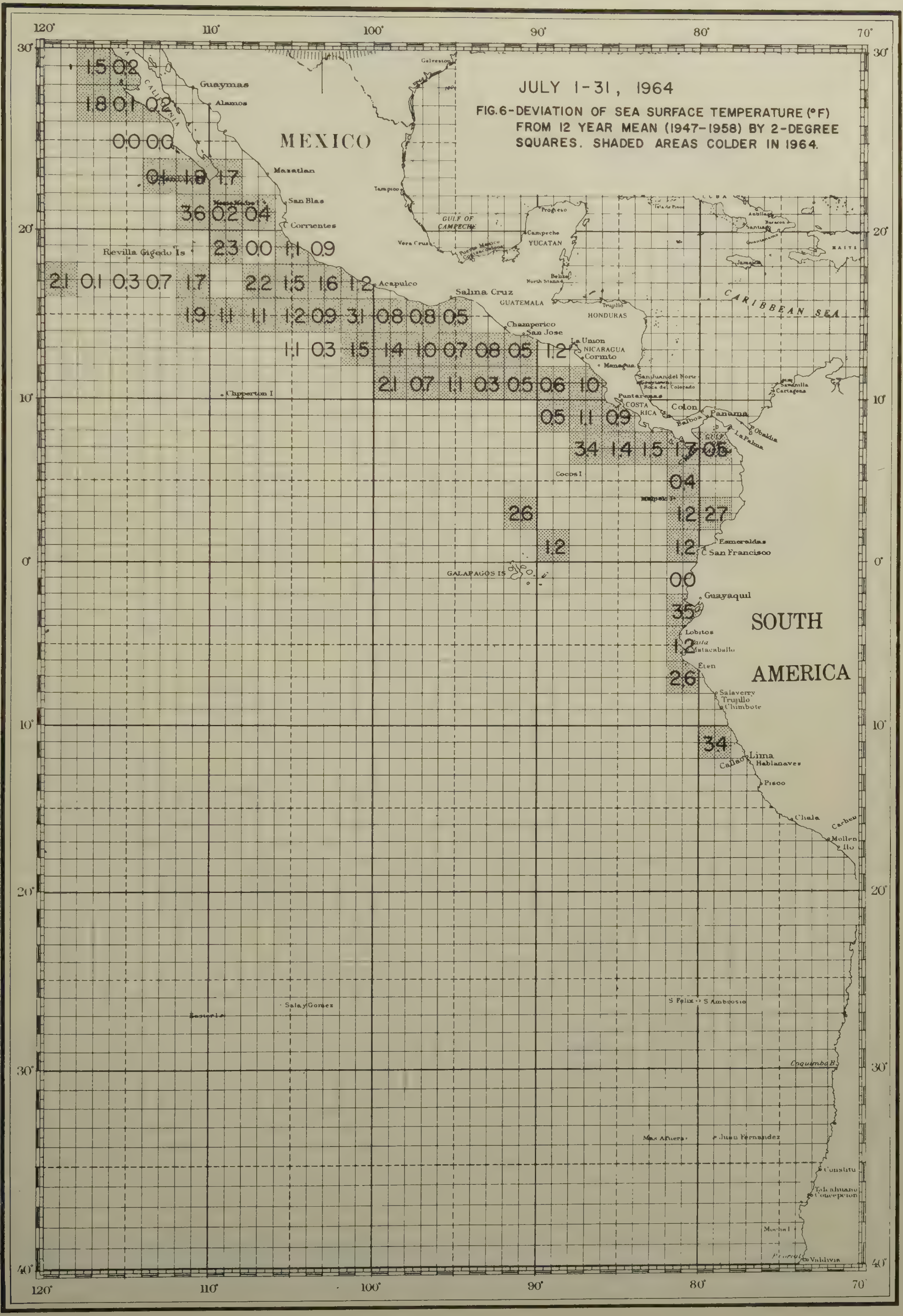
MEXICO
SOUTH AMERICA
HAWAIIAN ISLANDS
CARIBBEAN SEA
GULF OF CAMPECHE
GALAPAGOS IS
MARQUESAS
TUAMOTU ARCHIPELAGO
SOCIETY ISLANDS
COOK ISLANDS
TUBUAI OR AUSTRAL IS
SAMOA ISLANDS
TONGA ISLANDS
UNION ISLANDS
PHOENIX ISLANDS
KERMADEC IS
Honolulu
Guaymas
Mazatlan
San Blas
Corrientes
Salina Cruz
Panama
Guayaquil
Lima
Valdivia
65
70
75
80
60
180°
170°
160°
150°
140°
130°
120°
110°
100°
90°
80°
70°
30°
20°
10°
0°
40°



JULY 1-31, 1964

FIG.5-DEVIATION OF SEA SURFACE TEMPERATURE (°F) FROM JULY 1963 BY 1-DEGREE SQUARES. SHADED AREAS COLDER IN 1964.

120°
110°
100°
90°
80°
70°
30°
20°
10°
0°
40°
MEXICO
SOUTH AMERICA
CALIFORNIA
Guaymas
Alamos
Galveston
Mazatlan
San Lucas
San Blas
C. Corrientes
Tampico
GULF OF CAMPECHE
Vera Cruz
Puerto Mexico
Progreso
Campeche
YUCATAN
CUBA
Isla de Pinos
Antilla
Baracoa
Santiago
Guantanamo
HAITI
Jamaica
Belize
North Stann
CARIBBEAN SEA
Revilla Gigedo Is
Acapulco
Salina Cruz
GUATEMALA
Trujillo
HONDURAS
Champerico
San Jose
La Union
NICARAGUA
Corinto
Managua
San Juan del Norte
Boca de Colorado
Savanilla
Cartagena
Puntarenas
COSTA RICA
Colon
Balboa
Panama
Obaldia
La Palma
GULF OF PANAMA
Clipperton I
Cocos I
Malpelo I
Esmeraldas
C. San Francisco
GALAPAGOS IS
Guayaquil
Lobitos
P. Paita
Matacaballo
Eten
Salaverry
Trujillo
Chimbote
Callao
Lima
Habianaves
Pisco
Chala
Cachen
Mollen
Ilo
Sala y Gomez
Easter I.
S. Felix
S. Ambrosio
Coquimbo B.
Mas Afuera
Juan Fernandez
Constitu
Talcahuano
Concepcion
Mocha I
P. Corral
Valdivia



120°
110°
100°
90°
80°
70°
30°
20°
10°
0°
10°
20°
30°
40°
1.5 0.2
1.8 0.1 0.2
0.0 0.0
0.1 1.9 1.7
3.6 0.2 0.4
2.3 0.0 1.1 0.9
2.1 0.1 0.3 0.7 1.7 2.2 1.5 1.6 1.2
1.9 1.1 1.1 1.2 0.9 3.1 0.8 0.8 0.5
1.1 0.3 1.5 1.4 1.0 0.7 0.8 0.5 1.2
2.1 0.7 1.1 0.3 0.5 0.6 1.0
0.5 1.1 0.9
3.4 1.4 1.5 1.7 0.5
0.4
2.6 1.2 2.7
1.2 1.2
0.0
3.5
1.2
2.6
3.4
CALIFORNIA
Guaymas
Alamos
MEXICO
Mazatlan
San Blas
Corrientes
Revilla Gigedo Is
Acapulco
Clipperton I
Galveston
Tampico
Vera Cruz
GULF OF CAMPECHE
Progreso
Campeche
YUCATAN
CUBA
Isla de Pinos
Antilles
Santiago
Guantanamo
HAITI
Jamaica
Belize
North Stann
Salina Cruz
GUATEMALA
Trujillo
HONDURAS
CARIBBEAN SEA
Champerico
San Jose
La Union
NICARAGUA
Corinto
Managua
San Juan del Norte
Boca del Colorado
Savanilla
Cartagena
Puntarenas
COSTA RICA
Colon
Balboa
Panama
Obaldia
La Palma
GULF
Cocos I
Malpelo I
Esmeraldas
C San Francisco
GALAPAGOS IS
Guayaquil
SOUTH AMERICA
Lobitos
Paita
Mataeaballo
Eten
Salaverry
Trujillo
Chimbote
Lima
Callao
Hablanaves
Pisco
Chala
Carbeu
Mollendo
Ilo
Sala y Gomez
Easter I
S Felix
S Ambrosio
Coquimbo B
Mas Afuera
Juan Fernandez
Constitu
Talcahuano
Concepcion
Mocha I
Valdivia

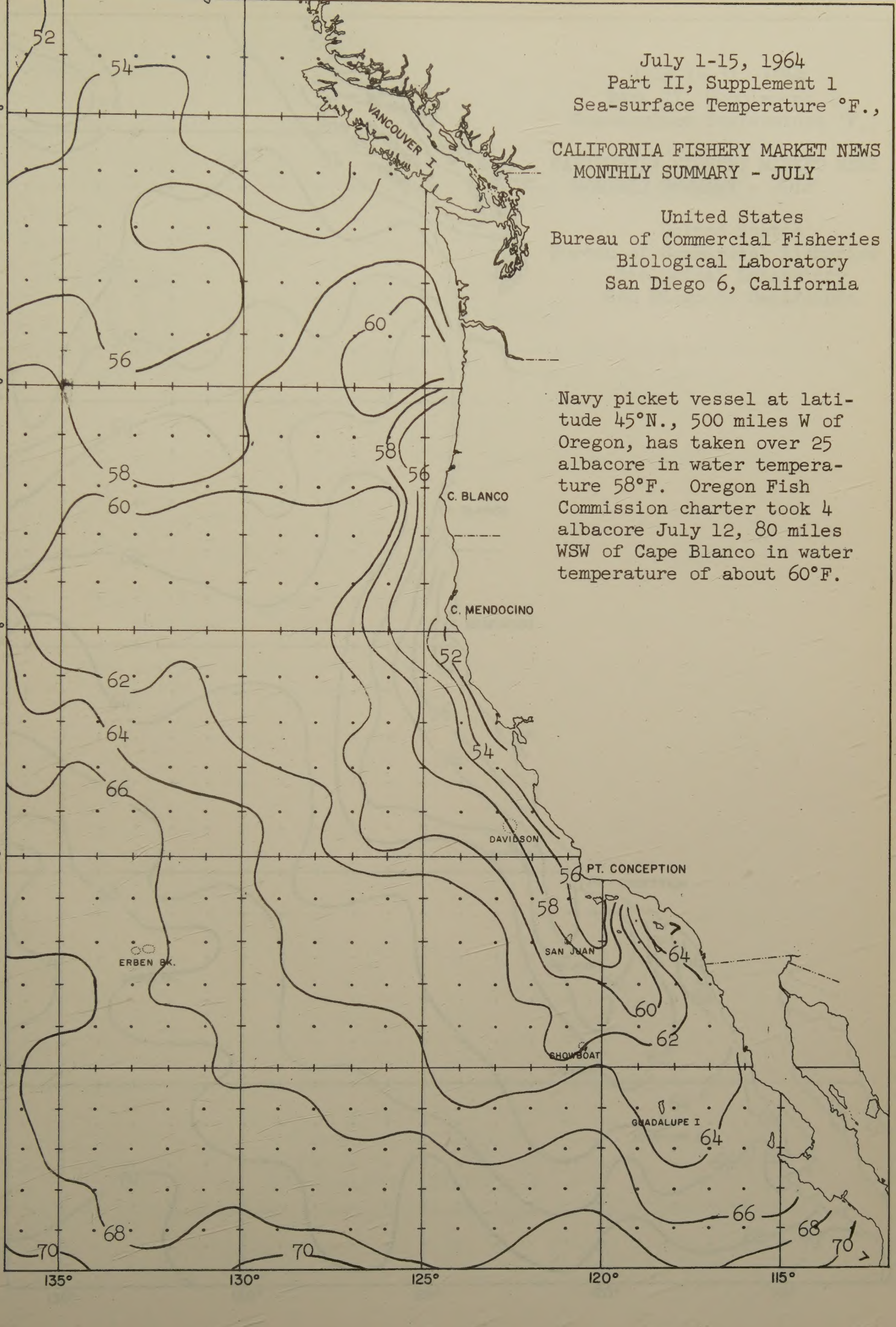
JULY 1-31, 1964

FIG. 6-DEVIATION OF SEA SURFACE TEMPERATURE (°F) FROM 12 YEAR MEAN (1947-1958) BY 2-DEGREE SQUARES. SHADED AREAS COLDER IN 1964.

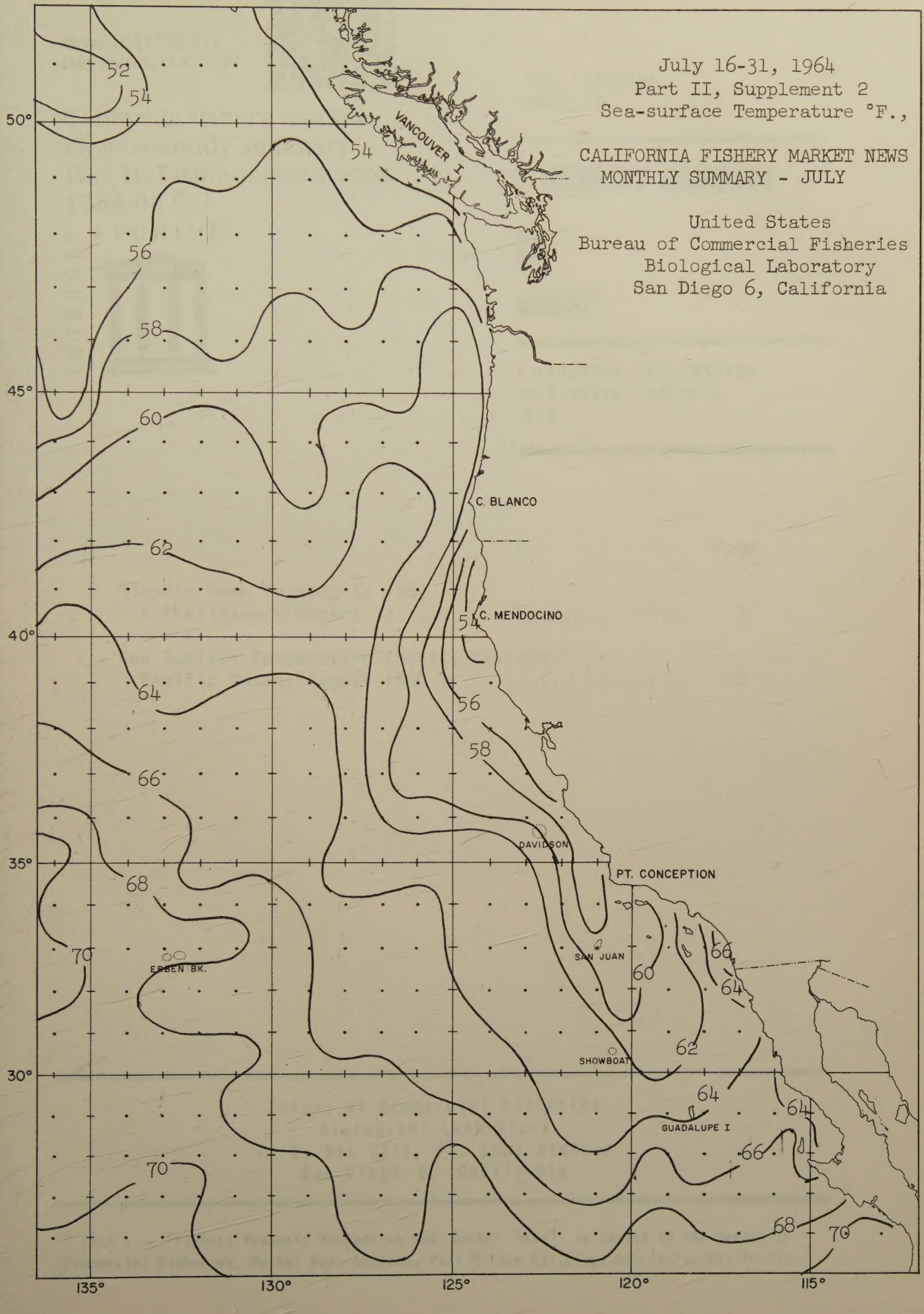
July 1-15, 1964
Part II, Supplement 1
Sea-surface Temperature °F.,

CALIFORNIA FISHERY MARKET NEWS
MONTHLY SUMMARY - JULY

United States
Bureau of Commercial Fisheries
Biological Laboratory
San Diego 6, California


52
54
50°
VANCOUVER I
56
60
45°
58
56
C. BLANCO
58
60
C. MENDOCINO
40°
52
62
64
54
66
DAVIDSON
35°
56
PT. CONCEPTION
58
SAN JUAN
64
ERBEN BK.
60
62
SHOWBOAT
30°
GUADALUPE I
64
66
68
68
70
70
70
135°
130°
125°
120°
115°

Navy picket vessel at latitude 45°N., 500 miles W of Oregon, has taken over 25 albacore in water temperature 58°F. Oregon Fish Commission charter took 4 albacore July 12, 80 miles WSW of Cape Blanco in water temperature of about 60°F.



VANCOUVER I
C. BLANCO
C. MENDOCINO
DAVIDSON
PT. CONCEPTION
SAN JUAN
ERBEN BK.
SHOWBOAT
GUADALUPE I
52
54
54
56
58
60
62
54
56
58
64
66
68
70
60
62
64
66
64
64
66
68
70
70
50°
45°
40°
35°
30°
135°
130°
125°
120°
115°

July 16-31, 1964
Part II, Supplement 2
Sea-surface Temperature °F.,

CALIFORNIA FISHERY MARKET NEWS
MONTHLY SUMMARY - JULY

United States
Bureau of Commercial Fisheries
Biological Laboratory
San Diego 6, California